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DATE MAILED: 11/29/2005

| APPLICATION NO.                                 | FI                 | LING DATE                               | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. CONFIRMATION NO. |      |
|---|--------------------|---|----------------------|--------------------------------------|------|
| 10/708,780                                      | 708,780 03/25/2004 |   | Yuan-Hsun WU         | NTCP0035USA                          | 2779 |
| 27765   | 7590               | 11/29/2005                              |                      | EXAMINER                             |      |
| NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION |                    |   |                      | DINH, JACK                           |      |
| P.O. BOX 506<br>MERRIFIELD, VA 22116            |                    |   | ART UNIT             | PAPER NUMBER                         |      |
|   |                    | , |                      | 2873                                 |      |

Please find below and/or attached an Office communication concerning this application or proceeding.

|  |  | AV  |  |  |  |  |  |
|--|--|---|--|--|--|--|--|
|  | Application No.  | Applicant(s)  |  |  |  |  |  |
|  | 10/708,780   | WU, YUAN-HSUN   |  |  |  |  |  |
| Office Action Summary  | Examiner   | Art Unit  |  |  |  |  |  |
|  | Jack Dinh  | 2873  |  |  |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply   | ears on the cover sheet with the   | correspondence address  |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION  (6(a). In no event, however, may a reply be to the street of the street o | N. mely filed n the mailing date of this communication. ED (35 U.S.C. § 133). |  |  |  |  |  |
| Status   |  |   |  |  |  |  |  |
| 1) Responsive to communication(s) filed on 25 Ma   | arch 2004.   |   |  |  |  |  |  |
|  | -  |   |  |  |  |  |  |
| ,— ,,  | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  |   |  |  |  |  |  |
| Disposition of Claims  |  |   |  |  |  |  |  |
| 4)  Claim(s) 1-4 is/are pending in the application. 4a) Of the above claim(s) is/are withdray 5)  Claim(s) is/are allowed. 6)  Claim(s) 1-4 is/are rejected. 7)  Claim(s) is/are objected to. 8)  Claim(s) are subject to restriction and/or   |  |   |  |  |  |  |  |
| Application Papers   |  | ·   |  |  |  |  |  |
| 9) The specification is objected to by the Examine 10) The drawing(s) filed on 25 March 2004 is/are: a Applicant may not request that any objection to the Replacement drawing sheet(s) including the correction 11) The oath or declaration is objected to by the Example 11.   | a)⊠ accepted or b)□ objected<br>drawing(s) be held in abeyance. So<br>ion is required if the drawing(s) is o   | ee 37 CFR 1.85(a).<br>bjected to. See 37 CFR 1.121(d).                        |  |  |  |  |  |
| Priority under 35 U.S.C. § 119   |  |   |  |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign  a) All b) Some * c) None of:  1. Certified copies of the priority documents  2. Certified copies of the priority documents  3. Copies of the certified copies of the priorical application from the International Bureau  * See the attached detailed Office action for a list  | s have been received.<br>s have been received in Applica<br>ity documents have been receiv<br>u (PCT Rule 17.2(a)).  | tion No<br>ved in this National Stage   |  |  |  |  |  |
| Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 4) Interview Summai  | Date  |  |  |  |  |  |
| 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date   | 5)   | Patent Application (PTO-152) ACTION.  |  |  |  |  |  |

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#### **DETAILED ACTION**

## Claim Objections

1. Claims 1 and 4 are objected to because of the following informalities. Regarding claims 1 and 4, "angel" is misspelled. Appropriate correction is required.

## Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2 and 3 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2, the phrase "sigma  $\sigma_{inner}$  value" renders the claim indefinite. It is unclear of the actual representation of the phrase.

Regarding claim 3, the phrase "sigma  $\sigma_{outer}$  value" renders the claim indefinite. It is unclear of the actual representation of the phrase.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saitoh et al. (US Publication 2002/0177048).

Regarding claim 1, Saitoh (figure 23) is interpreted as disclosing an aperture plate comprising an opaque plate having thereon a central pole aperture 157, and a set of four sector apertures 155 having substantially the same opening angle, wherein the sector apertures radiating from a center point of the pole aperture communicate with the central pole aperture. Saitoh is interpreted as disclosing all the claimed limitations except for explicitly stating that the aperture plate when in combination with conventional light and annular light can provide Bow-Pole and Quasar illumination. However, the Bow-Pole and Quasar illumination created by the conventional light and annular light would be inherent from Saitoh's figure 23. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use conventional light or annular light, for the purpose of creating the Bow-Pole and Quasar illumination.

Regarding claim 2, Saitoh (figure 23) is interpreted as further disclosing that the dimension of the central pole is determine by its radius (not shown).

Regarding claim 3, Saitoh (figure 23) is interpreted as further disclosing that the dimension of the sector apertures is determined by its radius (not shown).

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Regarding claim 4, Saitoh (figure 23) is interpreted as disclosing all the claimed limitations except that the opening angle angle is about 35 degrees. However, all degrees of the opening angle is known by one skilled in the art and can be experimented depending on the application. It is considered not inventive to discover the optimal range by experimentation. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select an angle of 35 degree, for application-specific purposes.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack Dinh whose telephone number is 571-272-2327. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky L. Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jack Dinh 11/21/05

**Loha Ben Primary Examiner**